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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of: Jill McFadden et al.

Serial No.: 09/097,023

Examiner: M. Thompson

Filed: June 12, 1998

Group Art Unit: 3763

For: CATHETER WITH KNIT SECTIONS

Docket No.: 1001.1566101 (formerly 290252021800)

Assistant Commissioner for Patents  
Washington, D.C. 20231

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**APPEAL BRIEF UNDER 37 C.F.R. § 1.192**

**CERTIFICATE UNDER 37 C.F.R. 1.8:** I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231, on

this 22nd day of May, 2002.

By

David M. Crompton

Dear Sir or Madam:

Pursuant to 37 C.F.R. § 1.192, Appellants hereby submit an Appeal Brief in triplicate in furtherance of the Notice of Appeal filed on March 22, 2002. Enclosed herewith is a check in the amount of \$320.00 to cover the fee prescribed by 37 C.F.R. § 1.17(c). Permission is hereby granted to charge or credit deposit account number 50-0413 for any errors in fee calculation.

## TABLE OF CONTENTS

I.	REAL PART IN INTEREST.....	3
II.	RELATED APPEALS AND INTERFERENCES.....	3
III.	STATUS OF CLAIMS .....	3
IV.	STATUS OF AMENDMENTS .....	4
V.	SUMMARY OF INVENTION.....	4
VI.	ISSUES .....	5
VII.	GROUPING OF CLAIMS.....	5
VIII.	ARGUMENT.....	5
	A.    THE CLAIMS ARE PATENTABLE UNDER 35 U.S.C. § 102(b) SINCE <i>CORNELIUS ET AL.</i> DO NOT DISCLOSE A “KNIT TUBULAR MEMBER.” .....	5
	1. <u>The Examiner Failed To Construe The Claims In Light Of The               Specification.</u> .....	6
	2. <u>The Examiner’s Reliance On Extrinsic Evidence To Give A               Meaning To The Term “Knit” Contrary To That Contained In The               Specification Is Improper.</u> .....	9
	3. <u>The Dictionary Definition For The Term “Knit” Is Not The Same               As The Definition For The Term “Braid.”</u> .....	10
	4. <u><i>Cornelius et al.</i> Do Not Disclose or Teach A “Knit Tubular               Member.”</u> .....	11
	B.    THE CLAIMS ARE PATENTABLE UNDER 35 U.S.C. § 103(a) SINCE THE CITED PRIOR ART REFERENCES DO NOT TEACH OR SUGGEST ALL OF THE CLAIM LIMITATIONS. ....	12
IX.	CONCLUSION.....	13
X.	APPENDIX OF CLAIMS .....	14
XI.	APPENDIX OF AUTHORITIES CITED .....	22

**I. REAL PART IN INTEREST**

The real party in interest in this appeal is Target Therapeutics, Inc., a subsidiary of Boston Scientific Corporation, located at 47900 Bayside Drive in Fremont, California. An assignment from co-inventors Jill McFadden, Earl Bardsley and Robert Garabedian conveying all right, title and interest in the invention to Target Therapeutics, Inc. has been recorded at Reel 9458, Frame 0534.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other known appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

Appellants appeal the final rejection of claims 1-15, 17-22, 24-42, 44-48 and 50-60, all of which remain pending in the Application. Claims 16, 23, 43 and 49 have been cancelled.

Claims 1, 2, 6, 13, 18-21, 24, 27, 31, 34, 40, 45-48, 50-51 and 53-60 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Cornelius et al.* (U.S. Patent No. 5,338,295).

Claims 3-5, 7-9, 14-15, 17, 22, 25-26, 32-33, 35-37, 41-42, 44 and 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Cornelius et al.* (U.S. Patent No. 5,338,295) in view of *Samson et al.* (U.S. Patent No. 5,702,373). Claims 10-12, 28-30 and 38-39 stand rejected under 35 U.S. § 103(a) as being unpatentable over *Cornelius et al.* (U.S. Patent No. 5,338,295) in view of *Samson et al.* (U.S. Patent No. 5,702,373) as applied to claims 3-5, 7-9, 14-15, 17, 22, 25-27, 32-37, 41-42 and 44 above, and further in view of *Samson et al.* (U.S. Patent No. 5,549,109).

#### **IV. STATUS OF AMENDMENTS**

On February 12, 2002, Appellants filed a Response under 37 C.F.R. § 1.116 traversing the Examiner's rejection of claims 1-15, 17-22, 24-42, 44-48 and 50-60 in a Final Office Action mailed on September 25, 2001. No claims were amended in Appellants' Response under 35 U.S.C. § 1.116. In an Advisory Action mailed on April 9, 2002, the Examiner denied all pending claims, prompting the current appeal. The Examiner did, however, indicate that all amendments are entered and considered. Claims 1-15, 17-22, 24-42, 44-48 and 50-60 remain pending in the Application.

#### **V. SUMMARY OF INVENTION<sup>1</sup>**

A catheter section (122) comprising an elongate tubular member having a proximal end, a distal end, and a passageway defining a lumen extending between the proximal and distal ends includes a knit tubular member (128), and an inner tubular liner (126) in coaxial relationship with the knit tubular member (128). *See Application* at page 6, lines 5-13; Figures 2-3. The knit tubular member (128) may be formed from single or multiple strands of wire (134), and may be configured to include "up loops" and "down loops" of the same size. *See Id.* at page 8, lines 9-13; Figure 4. The knit tubular member (128) may also be formed from multifilament wire. *See Id.* at page 8, lines 14-16. In use, the knit tubular member (128) may be configured such that it does not significantly radially expand when an outwardly directed radial force is applied to its inner surface. *See Id.* at page 8, lines 17-20.

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<sup>1</sup> The references to the specification and drawings provided herein are exemplary, and are not deemed to be limiting.

## **VI. ISSUES**

Whether the “knit tubular member” recited in the proposed claims is equivalent to the “braid” disclosed in *Cornelius et al.*, supporting a rejection under 35 U.S.C. §§ 102(b) and/or 103(a)?

## **VII. GROUPING OF CLAIMS**

Pursuant to 37 C.F.R. § 1.192(c)(7), Appellants assert that claims 1-15, 17-22, 24-42, 44-48 and 50-60 stand or fall together in this appeal. Appellants respectfully request that the Board consider the patentability of claim 1 as the basis for its decision.

## **VIII. ARGUMENT**

### **A. THE CLAIMS ARE PATENTABLE UNDER 35 U.S.C. § 102(b) SINCE *CORNELIUS ET AL.* DO NOT DISCLOSE A “KNIT TUBULAR MEMBER.”**

The Examiner asserts on page 2 of the Advisory Action that Appellants’ Response filed on February 12, 2002 fails to place the Application in condition for allowance, stating that:

It is the Examiner’s position that if Applicant intends to claim a knit tubular member in a pattern of overlapping loops *then Applicant might clearly set forth the aforementioned claims language through an amendment to the claim limitations to prevent any confusion.* Furthermore, with respect to the Examiner’s assertion of multiple definitions given to the word “knit,” this assertion is to show the *broad possibilities* when considering what might constitute a prior art rejection when determining the scope of a knit structure. *Therefore, the Examiner’s focus on any of the possible definitions is sufficient when determining the applicability of a rejection such as the rejection applied to the instant application.*

Advisory Action (4/9/02) (emphasis added).

While the Examiner appears to indicate in the Advisory Action that lack of clarity (*i.e.* “broad possibilities”) and precision (*i.e.* “confusion”) formed the basis for the rejection, the Examiner fails to cite 35 U.S.C. § 112, ¶ 2 as the basis for rejecting the claims.<sup>2</sup> Instead, the Examiner argues that the proposed claims are unpatentable under 35 U.S.C. §§ 102(b) and 103(a) because the term “knit tubular member” recited in the claims is equivalent to the “braid” disclosed in *Cornelius et al.* *See* Office Action (9/25/01) at page 2, paragraph 2. To support this construction, the Examiner cites to Webster’s Ninth New Collegiate Dictionary, which defines “knit” as “to form by interlacing yarn or thread in a series of connected loops with needles,” and “braid” as “to form by interlacing strands.”

1. **The Examiner Failed To Construe The Claims In Light Of The Specification.**

It is a longstanding principal of claim interpretation that claims must be construed in light of the specification. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 U.S.P.Q.2d 1321 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370, 116 S. Ct. 1384, 38 U.S.P.Q.2d 1461 (1996). Words defined in the specification must be given the same meaning when used in the claims. *See General Electric Co. v. United States*, 572 F.2d 745, 753, 198 U.S.P.Q. 65 (Ct. Cl. 1978). As the Court of Claims stated in *Autogiro Co. of America v. United States*:

In serving its statutory purpose, the specification aids in ascertaining the scope and meaning of the language employed in the claims inasmuch as words must be used in the same way in both the claims and specification. U.S. Pat. Off. Rule 75(d). The use of the specification as a concordance for the claims is accepted by almost every court, and is a basic concept of patent law.

*Autogiro Co. of America v. United States* at 384 F.2d 391, 397-98, 155 U.S.P.Q. 697 (Ct. Cl. 1967). Thus, in interpreting the meaning of a claim term, the definition and explanation as

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<sup>2</sup> Indeed, the Examiner has not invoked 35 U.S.C. § 112, ¶ 2 as the basis for rejecting any claim throughout the prosecution of this Application. Pursuant to 37 C.F.R. § 1.193(a)(2), the Examiner is prohibited from entering a new ground of rejection on appeal. *See* MPEP at § 1208.01.

provided in the specification controls over dictionary definitions or other extrinsic evidence. *See Serrano v. Telular Corp.*, 111 F.3d 1578, 42 U.S.P.Q.2d 1538 (Fed Cir. 1997); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 39 U.S.P.Q.2d 1573 (Fed. Cir. 1996).

Appellants' specification clearly sets forth a definition and explanation of the term "knit," and should have been relied upon in interpreting the meaning of the claims. According to the specification:

Figure 4 shows a front half of the knit tubular member 128. The knit member 128 is preferably formed from a wire 134 having a generally circular cross-sectional shape. The diameter of the wire is preferably about 0.5 mil.-1.5 mil. The loop length L of the knit may be about 3.0 mil. - 15.0 mil., and the peak-to-peak height H of the loops may be about 3.0 mil-30.0 mil., for example. The wire may have other cross-sectional shapes such as rectangular (i.e., ribbon), for example. The knit tubular member 128 is preferably knitted from a single strand and configured with the "down loops" and "up loops" having the same size.

...  
The knit member 128 is preferably tightly knitted so that it is not significantly radially expandable (e.g., does not increase in diameter more than about 5% when an outwardly directed radial force is applied to an inner surface of the knit member.

The knit member 128 may be knitted on a conventional knitting machine, such as an Emilnestle machine (product designation number E88-187, or E90-102. The knitting machine produces a long rope of knit loops (Figure 4).

Application at page 8, lines 3-23.

As can be seen above, the specification clearly indicates that the term "knit tubular member" refers to a loop structure having interconnected "up" and "down" loops.<sup>3</sup> This loop structure is readily apparent when read in conjunction with Figure 4, which shows an enlarged partial view of the front half of the knit tubular member (128).

In addition to describing the various properties of the knit tubular member (128), the specification further provides an explanation of how the knit loops are formed. For example, the

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<sup>3</sup> Appellants further note that this definition of the term "knit" is supported by other teachings in the prior art. *See e.g., Andersen et al.* (U.S. Patent No. 5,674,276).

specification provides that the knit loops may be formed, for example, using an Emilnestle machine. *See Application at page 8, lines 21-23.* The specification also delineates between the terms “knit” and “braid,” further distinguishing the two words from each other. For example, the specification at page 10, lines 1-8 provides that:

The proximal segment 124 may also comprise a stiffener interposed between an inner liner and an outer cover. The inner liner and outer cover may comprise the materials specified herein for the inner liner 126 and outer cover 130 of the distal segment 122. The outer cover and inner liner of the proximal section may be formed from the same material as the outer cover and inner liner of the distal section, or from different materials. *The stiffener may be a knit, braided, or coil member comprising a metal alloy such as nitinol or stainless steel, or a polymeric material.*

(emphasis added).

Despite having clearly defined and explained the structure of knit tubular member (128) both in the specification and in the drawings, the Examiner asserts that “Applicant only uses the word ‘knit’ in the claims and doesn’t necessarily define or state such loops and their relationship, orientations, or structural connectivity.” Office Action (9/25/01) at page 6. This assertion, however, is contradicted by both the specification and drawings as discussed above. Appellants respectfully assert that the Examiner’s failure to construe the meaning of the term “knit” in view of the specification and drawings was improper, and should not support the basis for a rejection under 35 U.S.C. § 102(b).

2. **The Examiner's Reliance On Extrinsic Evidence To Give A Meaning To The Term "Knit" Contrary To That Contained In The Specification Was Improper.**

Although the specification and drawings clearly define and explain the term "knit," the Examiner nevertheless argues that since the definition of "knit" contained in Webster's Ninth New Collegiate Dictionary is similar to the definition of the word "braid," the two terms are the same.

The Examiner's reliance on Webster's dictionary to give a meaning to the term "knit" contrary to that defined in the specification was improper, and should not be maintained on appeal. In *Toro Co. v. White Consolidated Industries, Inc.*, 199 F.3d 1295, 53 U.S.P.Q.2d 1065 (Fed. Cir. 1999), the Federal Circuit cautioned against the use of such extrinsic sources to give meaning to technical or scientific terms contained in the claims. In that case, both parties relied upon a dictionary to define the words "cover," "attachment," "removable," and "included," each choosing definitions favorable to their position. *See Id.* at 1299. In reversing the lower court's decision granting summary judgment of literal infringement based on a particular definition of each term, the Federal Circuit cautioned against the use of dictionaries to define such words, stating that claim terms should be construed in the context in which they are used by the inventor and others in the art, not in a dictionary of general linguistic usage. *See Id.* at 1299-1300.

According to the Court:

This question can not be decided by a dictionary. Dictionaries are useful additional sources, as is the guidance of technical/scientific experts and other relevant evidence, in addition to the patent documents themselves, that may aid the judge in achieving the understanding and viewpoint of a person having experience in the field of the invention. However, dictionaries provide general definitions, rarely in sufficient detail to resolve close questions in particular contexts.

*Id.* at 1300.

Similar to the decision in *Toro Co. v. White Consolidated Industries, Inc.*, the Examiner's use of Webster's dictionary to give a meaning to the term "knit" different than that contained in the specification and drawings was improper. In interpreting the meaning of the term "knit," the Examiner was required to first look to the patent itself (i.e. intrinsic evidence) to construe the terms in the claims. *See Bell Atlantic Network Services, Inc. v. Covad Communications, Inc.*, 262 F.3d 1258, 1267, 59 U.S.P.Q.2d 1865 (Fed. Cir. 2001). Because the term "knit tubular member" is clearly defined and explained in the specification and accompanying drawings, it was improper for the Examiner to rely on extrinsic evidence to accord a different definition to that term.

3. **The Dictionary Definition For The Term "Knit" Is Not The Same As The Definition For The Term "Braid."**

Even assuming, *arguendo*, that the Examiner's resort to extrinsic evidence was proper, the definitions provided in Webster's dictionary do not support the Examiner's assertion that a "knit" is the same as a "braid." Webster's Tenth Edition Collegiate Dictionary defines "braid" as, *inter alia*, "a cord or ribbon having usually three or more component strands forming a regular diagonal pattern down its length." A "knit," on the other hand is defined as "to form by interlacing yarn or thread in a series of connected loops."

While Webster's dictionary may indicate that both a "knit" and "braid" may be formed from interlaced strands, the definitions provided for the two terms are not the same. A braid, according to Webster's, contains interlaced strands forming a regular diagonal pattern along its length. A "knit," on the other hand, is formed by interlacing strands in a series of connected loops. Accordingly, Webster's dictionary does not support the Examiner's conclusion that a "knit" is a "braid."

4. Cornelius et al. Do Not Disclose or Teach A “Knit Tubular Member.”

The Examiner argues that *Cornelius et al.* disclose a loop structure that occurs within a given strand within the tube by discussing the way in which a single strand loops around the tubular member. *See* Office Action (9/25/01) at page 6. According to the Examiner, if you follow each strand (50) as it encircles the tube, a loop is formed. *See Id.* Such a loop, according to the Examiner, is continual “as the strand moves longitudinally.” *Id.*

When read in light of the specification and accompanying drawings, the “knit tubular member” recited in the claims is clearly not equivalent to the “braid” disclosed in *Cornelius et al.* *Cornelius et al.* disclose an elongated member comprising a stainless steel ribbon (50) interwoven to form a tubular braid (52). *See Cornelius et al.* at column 3, lines 64-67; Figure 2 (reproduced below to the left). As can be seen in Figure 2 to *Cornelius et al.*, the braid (52) is woven in a “clothing weave” configuration. *See Id.* at column 2, lines 29-32.

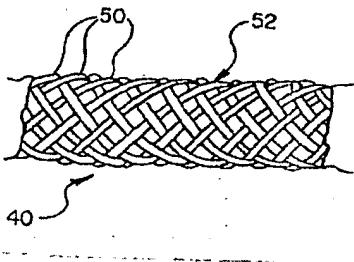


Figure 2 (*Cornelius et al.*)

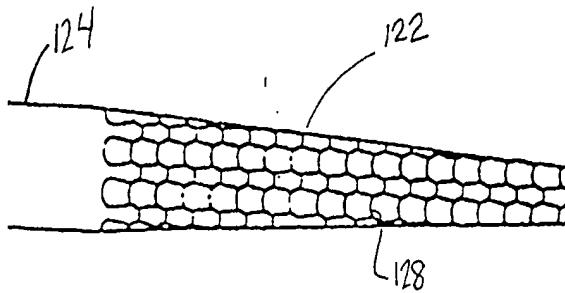


Figure 2 (Present Application)

In contrast, the present invention recites a “knit tubular member,” which as discussed *supra*, comprises up and down loops. As can be seen, for example in Figure 2 (reproduced above to the right), the knit tubular member (128) of the present invention is not the same as the woven braid (52) disclosed in *Cornelius et al.* Unlike the braid (52) in *Cornelius et al.*, the knit tubular member (128) claimed in the present invention includes interconnected “up” and “down”

loops. *See Application at page 8, lines 9-10.* Moreover, the knit tubular member (128) may be configured to not significantly radially expand when an outwardly directed radial force is applied to its inner surface. *See Application at page 8, lines 17-20.* In contrast, the woven braid (52) disclosed or taught in *Cornelius et al.* does not include up or down loops, and cannot be configured so as to prevent the strands (50) from significantly radially expanding in response to an outwardly directed radial force applied thereto.

Appellants respectfully assert that since *Cornelius et al.* do not disclose or teach a “knit tubular member” as recited in independent claims 1, 24, and 31, the Examiner’s rejection of claims 1, 2, 6, 13, 18-21, 24, 27, 31, 34, 40, 45-48, 50-51 and 53-60 under 35 U.S.C. § 102(a) was improper, and should be reversed on appeal.

**B. THE CLAIMS ARE PATENTABLE UNDER 35 U.S.C. § 103(a) SINCE THE CITED PRIOR ART REFERENCES DO NOT TEACH OR SUGGEST ALL OF THE CLAIM LIMITATIONS.**

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art. “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desireability of the combination.” *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be contained in the prior art, and not based on applicant’s disclosure. *See In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); MPEP at § 2143.

Appellants assert that claims 3-5, 7-12, 14-15, 17, 22, 25-30, 32-39, 41-42, 44 and 52 are patentable under 35 U.S.C. § 103(a) over *Cornelius et al.* (U.S. Patent No. 5,338,295) in view of *Samson et al.* (U.S. Patent No. 5,702,373), and further in view of *Samson et al.* (U.S. Patent No. 5,549,109). Claims 3-5, 7-12, 14-15 and 22 either directly or indirectly depend from independent claim 1. Claims 17 and 25-30, in turn, either directly or indirectly depend from independent claim 24. Claims 32-39, 41-42, 44 and 52, in turn, either directly or indirectly depend from independent claim 31. As discussed *supra*, *Cornelius et al.* do not disclose or teach a “knit tubular member” as recited in the present claims. As such, the cited prior art, neither alone nor in combination, teach or suggest all of the claim limitations. Because claims 1, 24 and 31 are patentable for these and other reasons, Appellants respectfully assert that claims 3-5, 7-12, 14-15, 17, 22, 25-30, 32-39, 41-42, 44 and 52 are also patentable over the cited prior art.

## IX. CONCLUSION

For the reasons stated above, the Examiner’s rejection of claims 1-15, 17-22, 24-42, 44-48 and 50-60 under 35 U.S.C. §§ 102(b) and/or 103(a) should be overruled.

Respectfully submitted,

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By their Attorney



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X. APPENDIX OF CLAIMS

1. A catheter section comprising an elongate tubular member having a proximal end, a distal end, and a passageway defining a lumen extending between the proximal and distal ends, said elongate tubular member comprising a knit tubular member and an inner tubular liner in coaxial relationship with the knit tubular member.
2. The catheter section of claim 1 wherein the knit tubular member comprises a metal alloy.
3. The catheter section of claim 1 wherein the knit tubular member comprises a superelastic alloy.
4. The catheter section of claim 3 wherein the superelastic alloy is a nickel-titanium alloy.
5. The catheter section of claim 3 wherein the superelastic alloy is nitinol.
6. The catheter section of claim 1 wherein the knit tubular member comprises stainless steel.
7. The catheter section of claim 1 wherein the knit tubular member comprises a platinum alloy.

8. The catheter section of claim 1 wherein the knit tubular member comprises a non-metallic material.

9. The catheter section of claim 8 wherein the non-metallic material is a polymeric material.

10. The catheter section of claim 1 wherein the kit tubular member comprises a multifilament wire.

11. The catheter section of claim 10 wherein the multifilament wire comprises stainless steel and platinum.

12. The catheter section of claim 10 wherein the multifilament wire comprises material selected from the group consisting of stainless steel, platinum, and nitinol.

13. The catheter section of claim 1 wherein the knit tubular member is formed from wire having a generally circular cross-sectional shape.

14. The catheter section of claim 13 wherein the wire has a diameter of about 0.3 mil – 1.5 mil.

15. The catheter section of claim 1 wherein the knit tubular member comprises a first strand made from a first material and a second strand made from a second material.

17. The catheter section of claim 54 wherein the outer tubular cover comprises a material selected from the group consisting of polyimide, polyamide, polyethylene, polypropylene, polyvinylchloride, fluoropolymers including PTFE, FEP, Nylon, polyether block amide, vinylidene fluoride, and their mixtures, alloys, copolymers, and a block copolymers.

18. The catheter section of claim 54 wherein the outer tubular cover comprises a polymer which can be heat-shrunk onto the knit tubular member.

19. The catheter section of claim 54 wherein the outer tubular cover is extruded onto the knit tubular member.

20. The catheter section of claim 54 wherein the outer tubular cover is bonded onto the knit tubular member.

21. The catheter section of claim 54 wherein at least one of the inner tubular liner and outer tubular cover are radiopaque.

22. The catheter section of claim 1 wherein the inner tubular liner comprises a material selected from the group consisting of polyethylene, fluoropolymer, Nylon, polyether block amide, polyvinyl chloride (PVC), ethyl vinyl acetate (EVA), polyethylene terephthalate (PET), and their mixtures, alloys, and copolymers.

24. A catheter section comprising an elongate tubular member having a proximal end, a distal end, and a passageway defining a lumen extending between the proximal and distal ends, said elongate tubular member comprising an inner liner, an outer cover, and a knit tubular member formed from a metal wire.

25. The catheter section of claim 24 wherein the metal wire comprises a superelastic alloy.

26. The catheter section of claim 25 wherein the superelastic alloy is nitinol.

27. The catheter section of claim 24 wherein the metal wire has a generally circular cross-section.

28. The catheter section of claim 24 wherein the metal wire is a multifilament wire.

29. The catheter section of claim 28 wherein the multifilament wire comprises stainless steel and platinum.

30. The catheter section of claim 28 wherein the multifilament wire comprises material selected from the group consisting of stainless steel, platinum, and nitinol.

31. A catheter comprising an elongate tubular member having a proximal end, a distal end, and a passageway defining a lumen extending between those ends, said elongate tubular member comprising:

a relatively stiff proximal segment; and  
a relatively flexible distal segment comprising a knit tubular member and an inner tubular liner in coaxial relationship with the knit tubular member.

32. The catheter of claim 31 wherein the knit tubular member comprises a superelastic alloy.

33. The catheter of claim 32 wherein the superelastic alloy is nitinol.

34. The catheter of claim 31 wherein the knit tubular member comprises stainless steel.

35. The catheter of claim 31 wherein the knit tubular member comprises a platinum alloy.

36. The catheter of claim 31 wherein the knit tubular member comprises a non-metallic material.

37. The catheter of claim 36 wherein the non-metallic material is a polymeric material.

38. The catheter of claim 31 wherein the knit tubular member comprises a multifilament wire.

39. The catheter of claim 38 wherein the multifilament wire comprises material selected from the group consisting of stainless steel, platinum, and nitinol.

40. The catheter of claim 31 wherein the knit tubular member is formed from wire having a generally circular cross-sectional shape.

41. The catheter of claim 40 wherein the wire has a diameter of about 0.3 mil. – 1.5 mil.

42. The catheter of claim 31 wherein the knit tubular member comprises a first strand made from a first material and a second strand made from a second material.

44. The catheter of claim 58 wherein the outer tubular cover comprises a material selected from the group consisting of polyimide, polyamide, polyethylene, polypropylene, polyvinylchloride, Nylon, polyether block amide, fluoropolymers including PTFE, FEP, low density polyethylene, vinylidene fluoride, and their mixtures, alloys, copolymers, and block copolymers.

45. The catheter of claim 58 wherein the outer tubular cover comprises a polymer which can be heat-shrunk onto the knit tubular member.

46. The catheter of claim 58 wherein the outer tubular cover is extruded onto the knit member.

47. The catheter of claim 58 wherein the outer tubular cover is bonded on the knit member.

48. The catheter of claim 58 wherein at least one of the inner tubular liner and the outer tubular cover are radiopaque.

50. The catheter of claim 31 wherein the proximal segment has an inner proximal liner and an outer proximal cover.

51. The catheter of claim 50 wherein the proximal segment further comprises a braid interposed between the inner proximal liner and the outer proximal cover.

52. The catheter of claim 50 wherein the proximal segment further comprises a coil interposed between the inner proximal liner and the outer proximal cover.

53. The catheter of claim 31 wherein the knit tubular member extends into the proximal segment.

54. The catheter of claim 1 further comprising an outer tubular cover extending over the knit tubular member.

55. The catheter of claim 1 wherein the knit tubular member is in contact with the inner tubular liner.

56. The catheter of claim 1 wherein the knit tubular member is formed from a plurality of tightly knit interlocking loops.

57. The catheter of claim 1 wherein the knit tubular member is generally not radially expandable.

58. The catheter of claim 31 further comprising an outer tubular cover extending over the knit tubular member.

59. The catheter of claim 31 wherein the knit tubular member is formed from a plurality of tightly knit interlocking loops.

60. The catheter of claim 31 wherein the knit tubular member is generally not radially expandable.

**XI. APPENDIX OF AUTHORITIES CITED**

*Autogiro Co. of America v. United States* at 384 F.2d 391, 155 U.S.P.Q. 697 (Ct. Cl. 1967);

*Bell Atlantic Network Services, Inc. v. Covad Communications, Inc.*, 262 F.3d 1258, 1267, 59 U.S.P.Q.2d 1865 (Fed. Cir. 2001);

*General Electric Co. v. United States*, 572 F.2d 7845, 753, 198 U.S.P.Q. 65, 71 (Ct. Cl. 1978);

*Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 U.S.P.Q.2d 1321 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 116 S. Ct. 1384, 38 U.S.P.Q.2d 1461 (1996);

*In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990);

*Serrano v. Telular Corp.*, 111 F.3d 1578, 42 U.S.P.Q.2d 1538 (Fed Cir. 1997);

*Toro Co. v. White Consolidated Industries, Inc.*, 199 F.3d 1295, 53 U.S.P.Q.2d 1065 (Fed. Cir. 1999);

*In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991);

*Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582, 39 U.S.P.Q.2d 1573 (Fed. Cir. 1996).